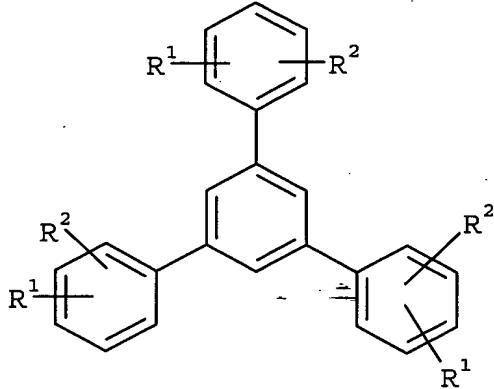


ABSTRACT

A photovoltaic device comprising a n-type semiconductor with a band-gap of greater than 2.9 eV, a spectral sensitizer and a 1,3,5-tris-5 aminophenyl-benzene compound represented by formula (I):



wherein R¹ represents a -NR³R⁴ group, wherein R³ and R⁴, same or different represent an unsubstituted C₂-C₁₀ alkyl group, a substituted C₂-C₁₀ alkyl group, a benzyl group, an unsubstituted 10 cycloalkyl group, a substituted cycloalkyl group, an unsubstituted aryl group or a substituted aryl group, and R² represents hydrogen, an alkyl group including a substituted alkyl group or halogen; and the 1,3,5-tris-aminophenyl-benzene compound is optionally in a cationic form; and a process for preparing the above-mentioned 15 photovoltaic device with at least one transparent electrode comprising the steps of: providing a support with a conductive layer as one electrode; coating the conductive layer on the support with a layer comprising the n-type semiconductor with a bandgap of greater than 2.9 eV; coating the n-type semiconductor-containing layer with 20 a solution or dispersion comprising the 1,3,5-tris-aminophenyl-benzene compound, or cation thereof, to provide after drying a layer comprising the 1,3,5-tris-aminophenyl-benzene compound; and applying a conductive layer to the layer comprising the 1,3,5-tris-aminophenyl-benzene compound thereby providing a second electrode.